Revanth Krishna Senthilkumaran

 linkedin.com/in/revanth-senthilkumaran

 revanthsenthil.github.io

 github.com/revanthsenthil

 bit.ly/revanth-scholar

@ revanthsenthil@gmail.com

Pittsburgh, PA

Permanent Resident of the USA

EDUCATION

- **Carnegie Mellon University** — Pittsburgh, PA
  Master of Science in Robotics, Advised by Ding Zhao (SAFE AI Lab) — Aug 2025 – **May 2027**

- **Purdue University** — West Lafayette, IN
  Bachelor of Science in Computer Engineering — Aug 2021 – May 2025

EXPERIENCE

- **SAFE AI Lab** — Pittsburgh, PA
  Graduate Research Assistant — Sep 2025 - Present
  - **Egocentric Cross-embodiment Learning**: Learning cross-embodiment policy with egocentric data collected with Vision Pro and transferring learning to UFactory xARM7 arms and G1 Humanoid.

- **AeroVironment** — Moorpark, CA
  Robotics Software Engineering Intern — Summers 2024 and 2025
  - **Internship**: Integrated AV autonomous software stack with Vapor Helicopter UAS and PX4 Quadcopter, along with ATAK software. Wrote bridges to send surveillance and mapping missions with BehaviorTree XMLs.

- **IDEAS Laboratory** — West Lafayette, IN
  Undergraduate Research Assistant — Sep 2023 - May 2025
  - **ARTEMIS**: Used a Unitree Go1 quadrupedal robot to demonstrate that robots can assist first-responders with AI-based triage labeling trained using a medical center ED dataset. Paper submitted to IEEE-IROS 2024.

- **Bechtel Innovation Design Center** — West Lafayette, IN
  Printing and Prototyping Peer Mentor — Feb 2023 - Sep 2024
  - **Makerspace**: Laser Cutting, 3D Printing: SLA, SLS, Carbon-fiber reinforced Onyx and resin

- **Robotics, Perception and Manipulation Laboratory** — Minneapolis, MN
  Undergraduate Research Assistant — Summer 2023
  - **Spot**: Developed new method of robust data collection using Boston Dynamics robot quadruped Spot for learning from demonstration on manipulation tasks with language commands for a vision-language model (Per-Act). Project involved Python, ROS, Simulation, Camera Transformations, Voxels, Boston Dynamics API.

- **SMART Laboratory** — West Lafayette, IN
  Undergraduate Research Assistant — Feb 2022 - Aug 2023
  - **IEEE-IROS 2023 (PUBLISHED: UPPLIED)**: Established novel method of using UAVs to inspect surfaces autonomously with learning from expert demonstration. WeBots simulation environment and VICON camera system to perform real world experiments.
  - **IEEE-TAC 2023 (PUBLISHED: MOCAS)**: Mobile robot SMARTmBOT used to create multimodal dataset with user studies for simultaneous cognitive workload assessment.

- **Air Force Research Laboratory** — West Lafayette, IN
  Undergraduate Researcher — Fall 2022 - Spring 2023
  - **NXP HoverGames3 Team Lead**: Led the NXP HoverGames3 team for a UAV sustainability contest. Proposed method of using drone with RGB-depth camera to investigate and inspect lettuce plants grown on vertical farming, using color, humidity and gas sensing.
  - **IEEE Autonomous UAV Challenge 2023**: Quadcopter track and follow a ground rover through obstacles.

- **The Autonomous Robotics Club of Purdue** — West Lafayette, IN
  President and Former Project Manager of Piano Hand — Sep 2021 - May 2025
  - **President**: Representing largest robotics club of Purdue: duties incl. councils for funding pitches, networking, club collaborations, workshops and seminars. Leading America's largest student-run robotics expo, RISE.
  - **Piano Hand**: Founded team to build autonomous human-like hand to read sheet music and play the piano.

SKILLS

Languages: Python, C++, C, URDF, XACRO **Technologies**: ROS, Git, IsaacSim, Linux, Docker, MATLAB